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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,554	08/07/2001	James William Otter	60246-145/8674	6915
26096	7590	05/16/2005	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			JACKSON, MONIQUE R	
			ART UNIT	PAPER NUMBER
			1773	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/923,554

Applicant(s)

OTTER, JAMES WILLIAM

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Applicant's arguments filed 2/18/05 in response to the Notice of Non-Responsive Amendment mailed 1/25/05 have been received and considered. The Applicant argues that the amended claims are not distinct from the original claims considering they are still directed to "a method of adhering a film to heat transfer component" and "a heat transfer component" and that the amended claims are species of the original "generic" claims. However, with respect to Claim 1, the "method for adhering a film to a heat transfer component", the Examiner notes that the original disclosure at the time of filing clearly shows that the "method of adhering" the film to a heat transfer component does not include the steps of flowing a first fluid in said heat transfer component and exchanging heat between the first fluid and the second fluid (Page 2 and Pages 4-5 of the Specification.) Additionally, it is noted that the original disclosure at the time of filing does not characterize the "heat transfer component" as including "a first fluid that flows through the flow passage or a second fluid that flows around said flow passage". Hence, if the Applicant's position is that the instant claims are still directed to the "method for adhering a film to a heat transfer component" and a "heat transfer component", the Examiner takes the position that the added limitations are directed to the intended use of the heat transfer component of Claim 10 and produced by Claim 1 and hence are not part of the "method of adhering" or the "heat transfer component". Alternatively, the Examiner takes the position that the amended claims fail to comply with the written description requirement in that they include new matter that was not described in the original disclosure at the time of filing.
2. The amendment filed 11/5/04 has been entered. New claims 15-25 have been added. Claims 1-25 are pending in the application.

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3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Amended Claim 1 recites the limitation “A method for adhering a film to a heat transfer component comprising the steps of:...flowing a first fluid in said heat transfer component; and exchanging heat between said first fluid and a second fluid flowing around said heat transfer component.” Similarly, amended Claim 10 recites the limitation “A heat transfer component...comprising a metal surface that defines a flow passage;...a first fluid that flows through the flow passage; and a second fluid that flows around said flow passage, and said first fluid exchanges heat with said second fluid.” However, upon a thorough review of the instant disclosure, the Examiner notes that the limitations with respect to a first fluid and a second fluid and the step of exchanging heat between the two are only discussed with respect to condensing furnace systems in general at paragraphs 2 and 17-18 wherein it clear from these sections and the remainder of the specification, that the “heat transfer component” of the instant invention does not comprise the first and second fluids but only comprises the metal/adhesive/film laminate.

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Further, the “method of adhering” clearly does not include the added steps of flowing a first fluid in said heat transfer component and exchanging heat between said first fluid and a second fluid flowing around said heat transfer component. It is evident from the instant disclosure at the time of filing that these added limitations refer to the intended use of the adhered heat transfer component or a method of using the heat transfer component not the heat transfer component itself or the method of making the heat transfer component. Hence, the Examiner takes the position that the instant claims fail to meet the written description requirement.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As discussed above, amended Claim 1 recites the limitation “A method for adhering a film to a heat transfer component comprising the steps of:...flowing a first fluid in said heat transfer component; and exchanging heat between said first fluid and a second fluid flowing around said heat transfer component.” Similarly, amended Claim 10 recites the limitation “A heat transfer component...comprising a metal surface that defines a flow passage;...a first fluid that flows through the flow passage; and a second fluid that flows around said flow passage, and said first fluid exchanges heat with said second fluid.” However, considering the instant disclosure fails to describe the “heat transfer component” and the “method of adhering a film” as including a first and second fluid or a step of transferring heat therebetween, it is unclear whether the Applicant’s intent is to claim the “heat transfer component” and the “method of adhering a film” or the heat transfer apparatus and a method of

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heat transfer which include the combination of the heat transfer component and the two fluids exchanging heat. Therefore, one having ordinary skill in the art would not be reasonably apprised of the scope of the claimed invention and could not interpret the metes and bounds of the claim so as to understand how to avoid infringement.

***Claim Rejections - 35 USC § 102***

8. Claims 1, 3-7, 9-12, 15-17, 19-21 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Bergstrom et al (USPN 4,990,383) for the reasons recited previously wherein the Examiner takes the position that the added limitations with regards to “a first fluid” and “a second fluid” and the added limitations of new Claims 15-17 and 19-21 constitute intended use of the heat transfer component or the adhered laminate and are not part of the heat transfer component or the method of adhering the film.

Bergstrom et al teach a plastic coated steel tube and a method for preparing the coated tube wherein the steel tube is first coated with a layer of polyolefin that has been modified with a hydrolyzable silane such as an ethylene terpolymer including an organosilane compound, preferably an unsaturated alkoxy silane, grafted or copolymerized within the ethylene polymer, and then coated with a second, outer plastic layer such as a polyolefin layer like polypropylene containing carbon black applied over the silane-containing layer and then the silane-containing layer is cured under the influence of moisture or water wherein a layer containing water or a layer which through chemical reaction splits off water may be use or by treatment in hot water or steam, wherein the Examiner takes the position that a steel tube reads upon the limitation “a heat transfer component of a condensing furnace system” and “a metal surface that defines a flow passage” (Abstract; Col. 2-4; Examples; Claims 5-8.)

***Claim Rejections - 35 USC § 103***

9. Claims 2, 8 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergstrom et al. The teachings of Bergstrom et al are discussed above. Though Bergstrom et al teach that the silane-containing layer may be applied to the steel tube utilizing various coating methods, Bergstrom et al do not teach that applying a rolling pressure as instantly claimed, however it is well known in the art, particularly in extrusion methods which Bergstrom et al reference, a rolling pressure is applied to the coating layer to press the layer against the substrate to be coated to facilitate adhesion of the coating layer to the substrate and hence would have been obvious to one having ordinary skill in the art at the time of the invention. With respect to Claim 8, Bergstrom et al further teach that silane-grafted polyolefins exhibit good adhesion to metals such as steel as well as polar plastics. Though Bergstrom et al do not specifically teach the second plastic layer of the coated steel is a polar plastic, given the above teaching, Bergstrom et al provides a suggestion to one skilled in the art to utilize a polar plastic such as polyamide, polyester, etc. given that the silane-grafted polyolefin layer provides good adhesion with steel as well as these polar plastics. With respect to Claims 13-14, Bergstrom et al do not teach a thickness as instantly claimed, however, it is well established in the art that adhesive layer thickness is a result-effective variable wherein one skilled in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum adhesive layer thickness to provide the desired adhesion between two specific materials to be adhered based on the desired end use of the laminate.

*Response to Arguments*

10. Applicant's arguments filed 11/5/04 and 2/18/05 have been fully considered but are moot in view of the new ground(s) of rejection.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Monique R. Jackson  
Primary Examiner  
Technology Center 1700  
May 10, 2005